

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2361-AR-2 AFIN: 22-00392

1. PERMITTING AUTHORITY:

Division of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

EnviraPAC Monticello, LLC  
346 Firing Range Road  
Monticello, Arkansas 71655

3. PERMIT WRITER:

Christopher Riley

4. NAICS DESCRIPTION AND CODE:

NAICS Description: All Other Miscellaneous Wood Product Manufacturing  
NAICS Code: 321999

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
1/24/2022	Major Mod	Existing Sources added to permit

6. REVIEWER’S NOTES:

EnviraPAC Monticello, LLC, located at 346 Firing Range Road, Monticello, Arkansas, produces powdered activated carbon form round wood. The facility has submitted a major modification to:

- Remove sources 06, 10-17, 22, and 25-28 from the permit.
- Add multiple existing sources to the permit.
- Renumber the active sources, new numbers start at SN-101.
- Modify the Insignificant Activities list.
- Increase propane throughput to 312,000 gallons a year.

The permitted emission increases are 1.34 tpy SO<sub>2</sub>, 0.56 tpy VOC, 10.2 tpy CO, 17.78 tpy NO<sub>x</sub>, and 0.08 tpy Total HAP. The permitted emission decreases are 47.75 tpy PM and 2.13 tpy PM<sub>10</sub>. The changes to the source numbers are below.

	Status	SN R1 Permit	SN New
Chipper	Active	1	101
Green Chip Storage	Active	2	102
Green Chip Loading	Active	3	103
40 HP Rotary Dryer#1 Cyclone	Active	4	105a
40 HP Rotary Dryer#2 Cyclone	Active	5	105b
40 HP Rotary Dryer#3 Cyclone	Never Built	6	
2 mmBtu/hr NG Carbonization Reactor Igniter Burner Emissions Only	Active	8	IA
2 mmBtu/hr NG Carbonization Reactor Igniter Burner Emissions Only	Active	9	IA
3 mmBtu/hr Propane Carbonization Reactor Igniter Burner Emissions Only	Never Built	10	
3 mmBtu/hr Propane Carbonization Reactor Igniter Burner Emissions Only	Never Built	11	
3 mmBtu/hr Propane Carbonization Reactor Igniter Burner Emissions Only	Never Built	12	
19 mmBtu/hr Propane Activation Reactor Igniter Burner Emissions Only	Never Built	13	
19 mmBtu/hr Propane Activation Reactor Igniter Burner Emissions Only	Never Built	14	
19 mmBtu/hr Propane Activation Reactor Igniter Burner Emissions Only	Never Built	15	
19 mmBtu/hr Propane Activation Reactor Igniter Burner Emissions Only	Never Built	16	
19 mmBtu/hr Propane Activation Reactor Igniter Burner Emissions Only	Never Built	17	
10 mmBtu/hr Propane Thermal Combustor Pilot Burner Emissions Only	Active	18	107
Powdered Activated Carbon (PAC) Surge Silo	Active	19	IA
Powdered Activated Carbon (PAC) Surge Silo	Active	20	IA
Powdered Activated Carbon (PAC) Loadout Station	Active	21	IA
Combustor and Recuperator #1 - 2.3 MMBtu/hr	Active	23	106a
Combustor and Recuperator #2 - 2.3 MMBtu/hr	Active	24	106b
Combustor and Recuperator #3 - 2.3 MMBtu/hr	Never Built	25	
Combustor and Recuperator #4 - 2.3 MMBtu/hr	Never Built	26	
Combustor and Recuperator #5 - 2.3 MMBtu/hr	Never Built	27	
Halogenation Process	Never Built	28	
128.5 mmBtu/hr Propane Thermal Combustor	Active	7	108
Steam Generator - 20 mmBtu/hr	Disconnected	22	
Green Chip Residual Sawdust Storage	Active	New	104
0.048 mmBtu/hr NG Recuperator pilot only	Active	New	IA
0.048 mmBtu/hr NG Recuperator pilot only	Active	New	IA
0.195 mmBtu/hr NG Wood gas flare pilot only	Active	New	IA
Divert Drag Chain Conveyor	Active	New	109
Grinding Mill #1	Active	New	110a

Grinding Mill #2	Active	New	110b
Carbon Loadout/FIBC Packing Station DC	Active	New	111
Valve Bag Packing Station DC	Active	New	112
300kW NG Emergency Generator	Active	New	113

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

Facility has a CAO w/r/t existing sources, source testing, and the dust management plan. Reference document C00013O8.xml

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N  
If yes, were GHG emission increases significant? N/A

b) Is the facility categorized as a major source for PSD? N

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
113	All	ZZZZ and JJJ

10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
N/A				

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

N/A

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
N/A		

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were evaluated. Based on Division of Environmental Quality procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

1<sup>st</sup> Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Division of Environmental Quality has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value ( $\text{mg}/\text{m}^3$ ), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV ( $\text{mg}/\text{m}^3$ )	PAER (lb/hr) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Acrolein	0.2	0.022	0.00918	Y

c) H<sub>2</sub>S Modeling: N/A

## 15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
101	EPA Region 10 May 8, 2004 Memo	PM= 0.024 lb/ton PM <sub>10</sub> =0.012 lb/ton	None		333,333 tpy of green wood chips
102	ADEQ August 22, 2003 Memo	PM= 0.0004 lb/ton PM <sub>10</sub> = 10% of PM	None		333,333 tpy of green wood chips
103	ADEQ August 22, 2003 Memo	PM= 0.0008 lb/ton PM <sub>10</sub> = 10% of PM	None		333,333 tpy of green wood chips
105a&b	AP-42	All lb/1000 gal PM/PM <sub>10</sub> – 0.7 SO <sub>2</sub> -1.5 VOC-1 CO-7.5 NO <sub>x</sub> -13	Cyclone	90%	83,333 tpy of wood chips
108	Stack Test	PM/ PM <sub>10</sub> = 6.8E-3 lb/MMBtu SO <sub>2</sub> = 9.3E-3 lb/MMBtu VOC= 0.01 lb/MMBtu CO= 0.01 lb/MMBtu NO <sub>x</sub> = 7.38E-2 lb/MMBtu	Flue Gas Analyzer	N/A	128.5 MMBtu/hr 8,760 hr/yr
106a&b	Stack Test	PM/ PM <sub>10</sub> = 6.8E-3 lb/MMBtu SO <sub>2</sub> = 9.3E-3 lb/MMBtu VOC= 0.01 lb/MMBtu CO= 0.01 lb/MMBtu NO <sub>x</sub> = 7.38E-2	Flue Gas Analyzer	N/A	2.3 MBtu/hr 8,760 hours

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		lb/MMBtu			
107	AP-42	All lb/1000 gal PM/PM <sub>10</sub> – 0.7 SO <sub>2</sub> -1.5 VOC-1 CO-7.5 NO <sub>x</sub> -13			
104	Memo/AP-42	0.0008lb/ton of green chips			
110a&b, 111, 112	DEQ standard	0.01 grains/DSCF			
113	Manufacture Certification				
109	AP-42	0.003 lb/ton of material			

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
108	NO <sub>x</sub> , CO, VOC	EPA 7E, EPA 10, EPA 25A	Initial	19.702 and/or 18.1002

17. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
108	Temp	Temp controller/thermocouple	Continuous	N

18. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
Facility	Green wood	333,333 tpy	Monthly	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	chips			
Facility	Propane	312,000 gal/yr	Monthly	N
108	Temperature	1,562 °F Minimum	During Operation, updated Monthly	N

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
101-103, 109, 113	20%	Reg.19.503	Observation
105a-108, 110a-112	5%	Reg.18.501	Observation

20. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs	
							Single	Total
Diesel Storage Tank (500 gallons)	A-3							
2MMBtu Natural Gas Pilot Light for Carbonization reactor #1	A-1	0.07	0.005	0.05	0.8	0.9	0.004	0.004
2MMBtu Natural Gas Pilot Light for Carbonization reactor #2	A-1	0.07	0.005	0.05	0.8	0.9	0.004	0.004
0.048 MMBtu Natural Gas	A-1	0.002	0.0001	0.001	0.02	0.03	0.0004	0.0004

Pilor Light for Combustor and Recuperator #1								
0.048 MMBtu Natural Gas Pilor Light for Combustor and Recuperator #1	A-1	0.002	0.0001	0.001	0.02	0.03	0.0004	0.0004
0.195 MMBtu Natural Gas Pilot Light for Wood Gas Flare (emergency only)	A-1	0.006	0.0001	0.005	0.07	0.09	0.002	0.002
Carbon Storage Silo #1 (Closed Loop Vent)	A-13							
Carbon Storage Silo #2 (Closed Loop Vent)	A-13							
Carbon Surge Silo (Closed Loop Vent)	A-13							

22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
2361-AR-1



## APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

## Fee Calculation for Minor Source

Revised 03-11-16

Facility Name: EnviroPAC  
 Permit Number: 2361-AR-2  
 AFIN:22-00392

			<b>Old Permit</b>	<b>New Permit</b>
\$/ton factor	27.27	Permit Predominant Air Contaminant	63.3	72.18
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	8.88	
Minimum Initial Fee \$	500	Permit Fee \$	400	
Check if Administrative Amendment <input type="checkbox"/>		Annual Chargeable Emissions (tpy)	72.18	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	63.3	15.55	-47.75
PM <sub>10</sub>	14	11.87	-2.13
PM <sub>2.5</sub>	0	0	0
SO <sub>2</sub>	7.8	9.14	1.34
VOC	8.2	8.76	0.56
CO	8.7	18.9	10.2
NO <sub>x</sub>	54.4	72.18	17.78